

Listing of the Claims

1. **(withdrawn)** A system for manufacturing optical fiber, comprising:
 - (a) a pregobbing apparatus having a furnace having a first temperature profile, the pregobbing apparatus adapted to provide a pre-optimized tip shape on the optical fiber preform, and
 - (b) a draw furnace having a second temperature profile which is substantially equal to the first temperature profile, the draw furnace adapted to draw optical fiber from the preform having the pre-optimized tip shape.
2. **(withdrawn)** The system of Claim 1 wherein the pregobbing heating furnace includes an induction heater.
3. **(withdrawn)** The system of Claim 1 wherein the pregobbing heating furnace and a draw apparatus utilized to draw fiber from the preform each include an induction heater.
4. **(withdrawn)** The system of Claim 1 wherein the pregobbing furnace includes a temperature between about 1800 °C and 2000 °C.
5. **(withdrawn)** The system of Claim 1 wherein the pregobbing furnace includes a temperature between about 1900 °C and 1950 °C.
6. **(withdrawn)** The system of claim 1 wherein the pre-optimized tip shape includes a tip taper having a ratio of tip length to radius change over the tip length of between about 5 to about 12.
7. **(withdrawn)** The system of claim 1 wherein the pre-optimized tip shape includes a tip taper having a ratio of tip length to radius change over the tip length of between about 6 to about 9.
8. **(withdrawn)** A system for manufacturing an optical fiber preform, comprising:
 - a pregobbing furnace adapted to heat the optical fiber preform and cause a glass to be removed, the pregobbing furnace having a temperature profile that is substantially equal to a temperature profile of a draw furnace utilized in a subsequent process to draw fiber from the preform.

9. **(withdrawn)** A system for manufacturing an optical fiber preform, comprising:

a pregobbing furnace adapted to heat the optical fiber preform and cause a glass to be removed to form a pre-optimized draw tip on the preform, the pregobbing furnace having a temperature profile substantially equal to a temperature profile of a separate draw furnace to draw fiber from the preform.

10. **(previously presented)** A method for manufacturing an optical fiber preform, comprising the steps of:

(a) heating a consolidated optical fiber preform within a chamber of a heating furnace having a first temperature profile of a hot zone of the heating furnace to allow a gob to drop under the influence of heat and gravity,

(b) removing additional glass from the preform in the heating furnace until a draw tip having a pre-optimized tip shape is formed, and

(c) transferring the preform to a draw furnace of a draw apparatus wherein a second temperature profile of a hot zone within the draw furnace is substantially identical to the first temperature profile.

11. **(canceled)**

12. **(previously presented)** The method of claim 10 wherein the step of heating is accomplished by at least one induction coil heating the preform.

13. **(previously presented)** A method for manufacturing an optical fiber preform, comprising the steps of:

a) heating a consolidated optical fiber preform within a chamber of a heating furnace having a first temperature profile of a hot zone of the heating furnace to allow a gob to drop under the influence of heat and gravity,

b) removing additional glass from the preform in the heating furnace until a draw tip having a pre-optimized tip shape is formed wherein the pre-optimized tip shape includes a tip taper having a ratio, defined as tip length divided by radius change over the tip length, of between about 5 to about 12, and

c) transferring the preform to a draw furnace of a draw apparatus wherein a second temperature profile of a hot zone within the draw furnace is substantially identical to the first temperature profile.

14. **(previously presented)** A method for manufacturing an optical fiber preform, comprising the steps of:

- a) heating a consolidated optical fiber preform within a chamber of a heating furnace having a first temperature profile of a hot zone of the heating furnace to allow a gob to drop under the influence of heat and gravity,
- b) removing additional glass from the preform in the heating furnace until a draw tip having a pre-optimized tip shape is formed wherein the pre-optimized tip shape includes a tip taper having a ratio, defined as tip length divided by radius change over the tip length, of between about 6 to about 9, and
- c) transferring the preform to a draw furnace of a draw apparatus wherein a second temperature profile of a hot zone within the draw furnace is substantially identical to the first temperature profile.

15. **(previously presented)** The method of Claim 10 wherein the step of heating includes heating the heating furnace to a temperature between about 1800 °C and 2000 °C.

16. **(previously presented)** The method of Claim 10 wherein the step of heating includes heating the heating furnace to a temperature between about 1900 °C and 1950 °C.

17. **(previously presented)** A method of making an optical fiber preform, comprising the steps of:
prior to drawing optical fiber from the preform in a draw furnace, heating a tip of the preform in a pregobbing heating furnace separate from the draw furnace to form a pre-optimized draw tip on the preform, said pre-optimized draw tip after being formed having a tip taper with a ratio, defined as tip length divided by radius change over the tip length, of between about 5 to about 12, and causing a temperature profile of a hot zone of the pregobbing furnace to be substantially equal to a temperature profile of a hot zone of the draw furnace.

18. **(canceled)**

19. **(previously presented)** The method of claim 17 wherein the pre-optimized draw tip after being formed includes a tip taper having a ratio, defined as tip length divided by radius change across the tip length, of between about 6 to about 9.

20. **(previously presented)** A method for manufacturing an optical fiber, comprising the steps of:

heating a consolidated optical fiber preform within a pregobbing apparatus including an induction furnace having a first temperature profile of a hot zone of the pregobbing apparatus to form pre-optimized shape preform tip, and

transferring the preform to a draw apparatus including an induction furnace and drawing optical fiber therefrom, the draw apparatus having a second temperature profile of a hot zone of the draw apparatus substantially equal to the first temperature profile.

21. **(previously presented)** A method for manufacturing an optical fiber, comprising the steps of:

heating a plurality of consolidated optical fiber preforms within a plurality of pregobbing apparatus, each apparatus including an induction furnace having a first temperature profile in a hot zone thereof to form pre-optimized shape preform tip on each of the plurality of preforms, and

transferring the plurality of preforms to a plurality of draw apparatus, each including an induction furnace and drawing optical fiber therefrom, the plurality of draw furnaces each having a second temperature profile in a hot zone thereof substantially equal to the first temperature profile.

22. **(original)** The method of claim 21 wherein there are a lesser number of pregobbing apparatus than draw apparatus.

23. **(previously presented)** A method for manufacturing an optical fiber preform, comprising the steps of:

heating a consolidated optical fiber preform within a chamber of a heating furnace to allow a gob to drop under the influence of heat and gravity and form a pre-optimized tip shape on a lower end of the preform having a tip shape includes a tip taper ratio, defined as tip length divided by radius change over the tip length, of between about 5 to about 12, and

transferring the preform to a draw furnace of a draw apparatus.

24. **(previously presented)** The method of Claim 23 wherein the step of heating includes heating the heating furnace to a temperature between about 1800 °C and 2000 °C.

25. **(previously presented)** The method of Claim 23 wherein the step of heating includes heating the heating furnace to a temperature between about 1900 °C and 1950 °C.

26. **(previously presented)** The method of claim 23 wherein the pre-optimized tip shape includes a tip taper having a ratio of between about 6 to about 9.